

FIRST HALF-HOUR INSTRUCTION

on the

HAMMOND CHORD ORGAN

The following simple procedure will enable anyone with *no* musical training to play an easy piece of music, enjoyably, in less than half an hour.

1. *TO TURN ON.* Under the keyboard, toward the center, find a black lever. Pull down and to the right. This will cause a click and light the pilot light.

2. *THE BALANCERS.* Above the playing keys, on the black panel, are three round knobs called "balancers."



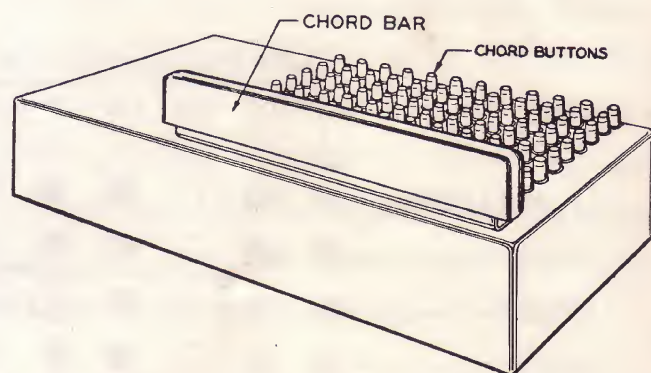
Turn these so the words "Pedal," "Organ," and "Solo" are right side up and horizontal.

3. *THE STOP TABLETS.* There are twenty black and white stop tablets in a row, across the top of the instrument. At the top of each sheet of music the following kind of diagram appears:



Run the thumb horizontally across the *top* of all the tablets, thereby causing each one to be pushed in at the top as far as it will go. *Next* look at the diagram and note the black dots above some of the tablets. In this case only seven tablets are so marked. Press the corresponding tablets *at the bottom*, as far as they will go. Dots will appear at the top which can be compared with the diagram on the music.

4. *THE CHORD BUTTONS AND CHORD BAR.* The Chord Buttons, in twelve rows of eight, are played with the left hand, *one button only* at a time. In front of them is the Chord Bar.



This is used to play rhythms and accents. In the beginning, *use it as a hand rest*. You will find it com-

fortable to rest the whole weight of the hand on the chord bar, *holding it down all the time*. While doing so try pressing buttons, one at a time, at random, going smoothly from one button to the next.

5. *THE PEDALS*. There are two pedals to be played with the left foot. The pedals bring on low notes, *provided* some button is being held down. Otherwise not. The pedal notes are always the correct ones, automatically, to go with the chord being played.

In the beginning, put the left foot on the *left* pedal and *rest it there* permanently. In this way the chords will sound very much better with the added bass "root" note.

Now repeat the procedure of pressing one button after another, at random. Go smoothly from button to button, with the left foot on the left pedal all the time, and the hand resting on the chord bar.

6. *THE EXPRESSION CONTROL*. This is the lever with which the instrument was turned on. It

should bear against the *right side* of the right knee, and makes the music louder as the knee is moved to the right.

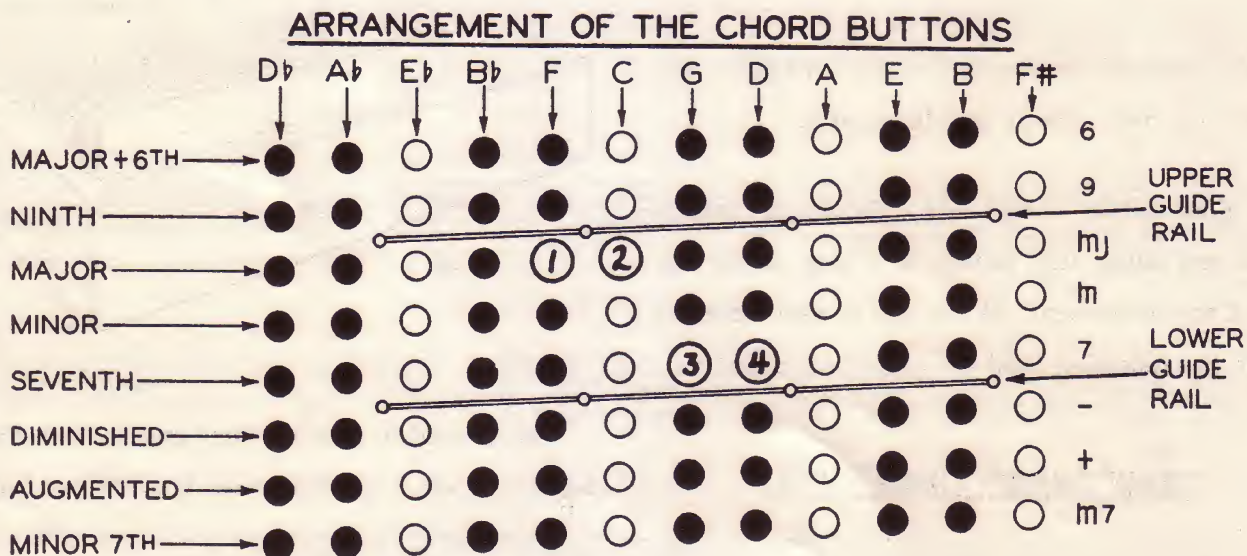
SIMPLE STYLE OF PLAYING

There is one style of playing which is extremely easy, and yet sounds beautiful.

It consists of playing a simple, slow-moving melody with the right hand, never playing more than one note at a time.

The left hand then holds one button down at a time, with only slow changes from one button to another. The left foot simply rests on the left pedal, all the time, and the left hand rests on the chord bar. A great deal of the music supplied with the instrument can be played in this way.

Using "Silent Night" (page 4) as an example, the following instructions will enable anyone to play this piece in a few minutes.



CHORD BUTTON CAPS. Don't let the Chord Buttons alarm you as being complicated. Certain chords and sequences of chords occur over and over again. The most important chords have been given Chord Numbers. In "Silent Night" (and all other music written in the key of C), the most important chord is the C MAJOR chord, and is given the number 2. The next most important chord is the G SEVENTH chord and is given the number 3. The F MAJOR chord is No. 1 and the D SEVENTH chord is No. 4.

Supplied with your instrument are four small plastic caps which can be placed over these four principal Chord Buttons. They serve to identify these chords at a glance, and also are easy to "feel" with the fingers because they stand above the other buttons. Place these four caps on the four Chord Buttons as shown in the diagram. The buttons may have been left in the wrong positions for the piece you intend to play so check this.

If you are not sure of the locations, refer to the diagram, which shows the button caps placed in position for playing in the Key of C.

SHEET MUSIC. The sheet music for the Chord Organ is very simple because it is necessary only to indicate the melody line to be played with the right hand and the Chord Buttons to be played with the left hand. Each piece of music is supplied in these two forms:

(a) The "STANDARD MUSIC" in which the melody line is scored in the conventional manner. If you have ever had any music lessons, you may prefer this form. The Chord Numbers are written in bold type below the staff.

(b) If you have never had any music lessons, you probably will prefer the "PICTURE MUSIC" form which is printed on the back side of the sheet. In this type of music all the notes are spaced from left to right as on the keyboard, and the vertical length of each note indicates how long to hold down the corresponding playing key. This music is read in columns from top to bottom.

Vertical "guide lines" show the locations of the black keys (in groups of two and three). Black notes are shown in solid black, whereas white notes are shown in white, with their letter names. A keyboard "picture" at the top enables you to locate the first note in each column. This "picture" does not include the full keyboard, but always starts at the lowest note so that you can locate your first melody note by counting up from the left end.

The Chord Button numbers are shown to the left of the notes.

You are now ready to start playing. Perhaps you will first want to try the right hand melody part alone, and then the Chord Buttons. In order to play the Chord Buttons smoothly, make it a habit to use the little finger for the No. 1 button, the ring finger for the No. 2 button, the middle finger for the No. 3 button, and the index finger for the No. 4 button. You will find that a great many selections do not use more than these four chords. "Silent Night," for example, makes use of only three of them.

Remember that the most desirable accompaniment effect is produced by smoothly depressing the Chord Buttons. Make a point of "creeping around" on them; that is, don't release a button until you depress the next one.

SILENT NIGHT — KEY OF C

(Picture Music)

REST LEFT HAND ON CHORD BAR
REST LEFT FOOT ON LEFT PEDAL

2=C
1=F 3=G7
COUNT 3

REST LEFT HAND ON CHORD BAR
REST LEFT FOOT ON LEFT PEDAL

Rest Left Hand on Chord Bar.
Rest Left Foot on Left Pedal.

(Standard Music)

LOWEST MANUAL KEY IS

2=C
1=F 3=G7

SECOND HALF-HOUR INSTRUCTION

on the

HAMMOND CHORD ORGAN

The purpose of the following information is to show you how to play the entire library of music supplied with your instrument.

THE MUSICAL "KEYS"

Everyone has heard the question, "What key do you play it in?" This refers to the note on the keyboard which is being used for "do" in the familiar "do, re, mi, fa, sol, la, ti, do" progression. The key note is designated by the name of the last chord of the selection. In your "First Half-Hour Instruction," "Silent Night," for instance, was in the key of C MAJOR (the last chord being C MAJOR). Most music is written in the key of C, F, G, B \flat , E \flat , A \flat , or D. Different keys are used to avoid tonal monotony and also to cause the particular melody to fall in the usual voice range.

MORE ABOUT THE CHORD BUTTONS

As pointed out before, don't let the number of Chord Buttons alarm you. Here is an astounding fact: You will be using only THREE of the 96 Chord Buttons for over half of the time when play-

ing in any particular key! As explained before, the principal chord in the key of C is C MAJOR which is called the No. 2 chord; G SEVENTH is the No. 3 chord; F MAJOR is the No. 1 chord; and D SEVENTH is the No. 4 chord.

Referring to Figure 1 below, we see that these four principal chords lie in four adjacent vertical rows with the Nos. 1 and 2 Chords in the MAJOR row (just below the upper guide rail) and Nos. 3 and 4 Chords in the SEVENTH row (just above the lower guide rail).

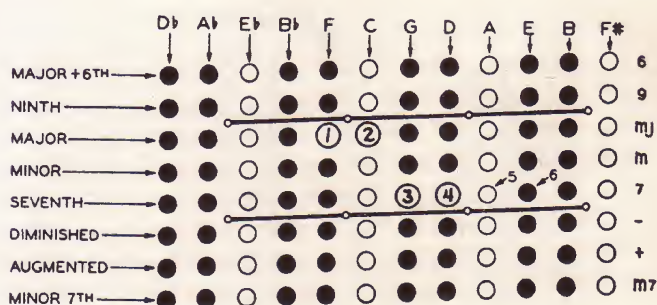


FIGURE 1 - BUTTON CAP LOCATIONS FOR THE KEY OF C

When playing in another key, you need merely shift the button caps to the left or right from this position. Their relative position remains the same.

For instance, when playing in the key of G, the No. 2 Button is then G MAJOR (instead of C MAJOR as it was in the key of C). Likewise, all the button caps should be moved one row to the right. When playing in the key of F, the No. 2 Button is then F MAJOR and all the button caps should be moved one row to the left. Figures 2 and 3 below show the locations of the button caps for these keys.

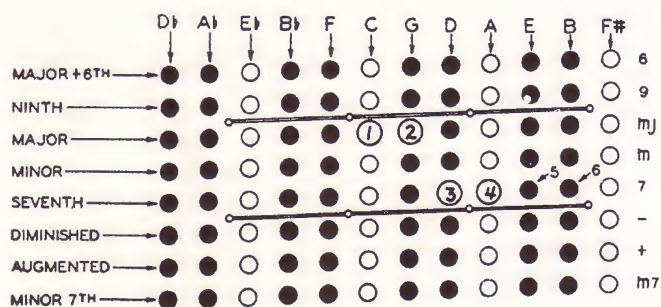


FIGURE 2 - BUTTON CAP LOCATIONS FOR THE KEY OF G

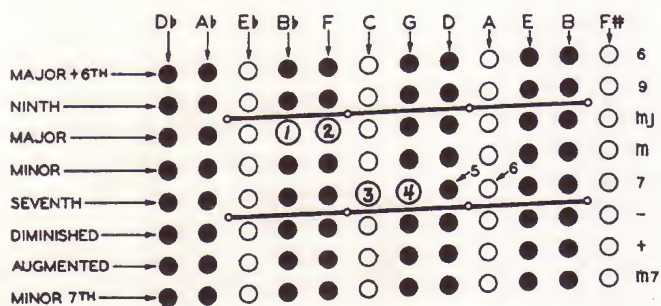


FIGURE 3 - BUTTON CAP LOCATIONS FOR THE KEY OF F

PLAYING "SILENT NIGHT" IN THE KEY OF F

To show you how the button caps are transposed when playing in different keys, let's play "Silent Night" in the key of F. All the button caps should

be moved one row to the left from their positions when you played this selection in the key of C. Referring to Figure 3, No. 2 chord is F MAJOR, No. 3 chord is C SEVENTH, No. 1 chord is B \flat MAJOR, and No. 4 chord is G SEVENTH.

On page 3 are shown the two types of music for "Silent Night" in the key of F. You will find that the right hand melody part is played on different keys, but that the left hand Chord Numbers are exactly the same as in the key of C. They "feel" the same, but actually play different chords because you transposed the chord button caps before you started to play.

SQUARE NOTES

Note that in the "Standard Music" form of "Silent Night—Key of F," all of the "B \flat " notes are shown as *square* wherever they occur. This is to remind you of the "B \flat " in the key signature. A box at the lower left corner of the music sheet shows whether the square notes refer to sharps or flats, depending upon the key signature used.

RULES FOR LOCATING THE BUTTON CAPS

- (1) Referring to the box at the lower right corner of the music, place the No. 2 cap on the button designated as No. 2. This is a MAJOR chord and generally indicates the key in which the music is written.
- (2) Place the No. 1 cap on the button designated as No. 1. This is the MAJOR chord to the left of the No. 2 cap.

SILENT NIGHT — KEY OF F



(Standard Music)

Rest Left Hand on Chord Bar.
Rest Left Foot on Left Pedal.

LOWEST MANUAL KEY IS

FLAT
Square Notes

2=F
1=Bb 3=C7

(Picture Music)

REST LEFT HAND ON CHORD BAR
REST LEFT FOOT ON LEFT PEDAL

2=F
1=Bb 3=C7
COUNT 3

(3) Place the No. 3 cap on the button designated as No. 3. This is the SEVENTH chord one vertical row to the right of the No. 2 cap.

(4) Place the No. 4 cap on the SEVENTH chord to the right of the No. 3 cap.

The No. 5 and No. 6 chords are the next two SEVENTH Chords to the right of the No. 4 cap. Button caps are not supplied for these chords because they are not used as often and it is easy to "count over" from the position of the No. 4 cap.

For your convenience a box at the lower right of each sheet of music shows the Chord Names of the Nos. 1, 2, and 3 chords.

IMPORTANCE OF USING CHORD NUMBERS

Each piece of music has both the Chord Names and the Chord Numbers written on it. On the "Standard Music," the abbreviations for the Chord Names are written above the melody notes with the Chord Numbers below. In the "Picture Music," the Chord Names are in a column at the extreme left. It is strongly recommended that you use the Chord Numbers rather than the Chord Names. By so doing you will recognize familiar chord progressions at a glance on the music regardless of the key. For example, the sequence of chords Nos. 3, 2, 1 and 2 is common to hundreds of well-known musical selections. The Chord Number system conforms to standard classical harmony notations where, for example, the Chord Organ chord No. 1 is known as the "Sub-dominant" chord, chord No. 2 the "Tonic." chord No. 3 the "Dominant-Seventh," etc.

The symbol "NC" (meaning "no chord") is used where no accompaniment is desired. In this case, no Chord Button should be depressed.

ABBREVIATIONS FOR CHORD NAMES AND CHORD NUMBERS

To save space on the sheet music, the Chord Numbers as well as the Chord Names are abbreviated. The Chord Name abbreviations are indicated on the instrument in a column to the right of the Chord Buttons. Note, however, that the Chord Name abbreviations for the major chords have no suffix on the sheet music. Examples: C, E_b, F_#, etc.

The Chord Numbers have similar abbreviations. For instance, when playing in the key of F, "2m" is the abbreviation for the F MINOR Chord, "2—" for the F DIMINISHED Chord, etc.

If the Chord Number abbreviations ever leave you in doubt as to the location of a Chord Button, refer to the corresponding Chord Name, which is always shown on the sheet music. The Chord Names are shown above the melody notes on the "Standard Music," and in a column at the extreme left of the "Picture Music." You will then soon understand exactly how the Chord Number system works.

Figure 4 shows the Chord Number designations for all of the Chord Buttons for the key of C. Note particularly that the Chord Numbers 1 and 2 are in the "MAJOR" row, and the corresponding "SEVENTH" chords are therefore designated "17" (read one-seven) and "27." Chord Nos. 3, 4, 5, and 6 are in the "SEVENTH" row, and the corresponding "MAJOR" chords are therefore designated "3mj,"

**CHORD NUMBER AREA
FOR KEY MARKED BY ARROW**

	Db	Ab	Eb	Bb	F	C	G	D	A	E	B	F#	
MAJOR+6TH	Db6	Ab6	Eb6	Bb6	16	26	36	46	56	66	B6	F#6	6
NINTH	Db9	Ab9	Eb9	Bb9	19	29	39	49	59	69	B9	F#9	9
MAJOR	Db	Ab	Eb	Bb	1	2	3mJ	4mJ	5mJ	6mJ	B	F#	mJ
MINOR	Dbm	Abm	Ebm	Bbm	1m	2m	3m	4m	5m	6m	Bm	F#m	m
SEVENTH	Db7	Ab7	Eb7	Bb7	17	27	3	4	5	6	B7	F#7	7
DIMINISHED	Db-	Ab-	Eb-	Bb-	1-	2-	3-	4-	5-	6-	B-	F#-	-
AUGMENTED	Db+	Ab+	Eb+	Bb+	1+	2+	3+	4+	5+	6+	B+	F#+	+
MINOR+7TH	Dbm7	Abm7	Ebm7	Bbm7	1m7	2m7	3m7	4m7	5m7	6m7	Bm7	F#m7	m7

FIGURE 4 — CHORD DESIGNATIONS FOR ALL BUTTONS IN THE KEY OF C

"4mJ," "5mJ," and "6mJ." When playing in a key other than C, the numbered area is moved to the left or right.

Db	Ab	Eb	Bb	1	2	3	4	5	6	B	F#
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FIGURE 5-CHORD NUMBER SLIDE

CHORD NUMBER SLIDE

Figure 5 shows the Chord Number Slide set for the Key of C (2=C). When this slide is set so that number 2 is opposite the appropriate key name (as designated at the box in the lower right of each sheet of music), one can see at a glance the location of all of the six numbered rows. The more experienced player usually prefers to use this slide instead of the chord button caps because it is more quickly set and shows at a glance the chord number designations for all of the chord buttons for any particular key.

NOTE: The slide may be taken off by moving it to the right. In replacing it, observe that the slide fits into two grooves at the end of the chord notation strip.

PLAYING RHYTHM PATTERNS WITH THE PEDALS AND CHORD BAR

While holding down a Chord Button, depress the left Bass Pedal and notice the addition of the deep bass tone. Do the same with the right pedal. The left Pedal produces the primary (or "root") bass tone whereas the right Pedal produces the secondary (or "fifth") bass tone. The left Pedal is more important than the right and is nearly always used for long duration bass notes.

Now try alternately playing the left and right Pedals with various Chord Buttons. Observe that the pitch of the bass notes changes as Chord Buttons in different vertical rows are played.

Now, while holding down a Chord Button, depress the *Chord Bar* with the palm of your hand (or your thumb—whichever you find the more convenient). Notice that the volume of the chord increases. The resulting increase in volume may be used to emphasize the rhythm of the chord accompaniment.

Here is a suggested pattern for a waltz. While holding down a Chord Button, play in sequence:

COUNT:	1	2	3	1	2	3	1	2	3	Etc.
PLAY:	<div> <div>—</div> <div>Chord Bar</div> <div>Chord Bar</div> </div>			<div> <div>—</div> <div>Chord Bar</div> <div>Chord Bar</div> </div>			<div> <div>—</div> <div>Chord Bar</div> <div>Chord Bar</div> </div>			Etc.
	Left Pedal	—	—	Right Pedal	—	—	Left Pedal	—	—	Etc.

While doing so, count 1, 2, 3. Play the pedal on count 1, and the Chord Bar on count 2 and again on count 3. Practice using different Chord Buttons.

Here is a fox-trot rhythm pattern. While holding down a Chord Button, play in sequence:

COUNT:	1	2	3	4	1	2	3	4	Etc.
PLAY:	<div> <div>—</div> <div>Chord Bar</div> <div>—</div> <div>Chord Bar</div> </div>				<div> <div>—</div> <div>Chord Bar</div> <div>—</div> <div>Chord Bar</div> </div>				Etc.
	Left Pedal	—	Right Pedal	—	Left Pedal	—	Right Pedal	—	Etc.

While doing so count 1, 2, 3, 4. Practice this using different Chord Buttons.

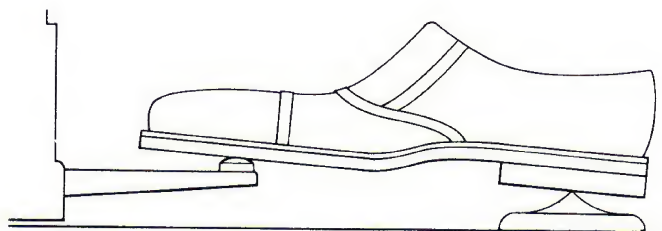


FIGURE 6-PLAYING POSITION OF GLASS HEEL REST

Figure 6 shows how the heel of the left foot may be supported by the *heel rest*. The player will find that this pointed glass heel rest enables him to alternate between the two pedals without fatigue. The heel rest also prevents rug or carpet wear.

PICTURE MUSIC RHYTHM PATTERNS

A suggested pattern for playing the chords and pedals is shown at the extreme left on the Picture Music. The pointers on the first line indicate the playing of the left and right pedals, whereas the length of the second line indicates how long to hold down the Chord Bar.

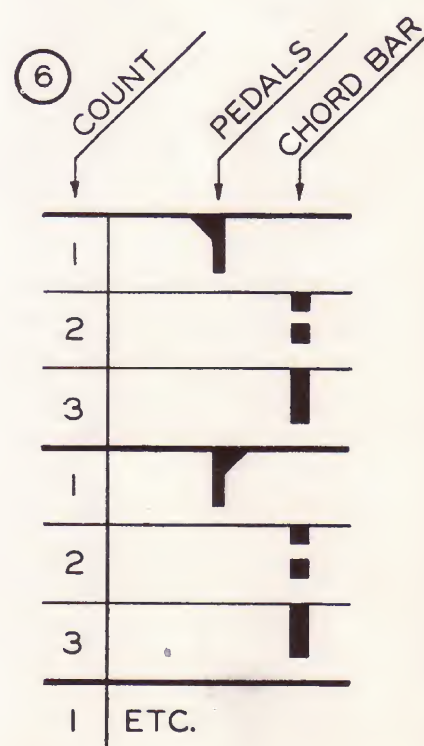
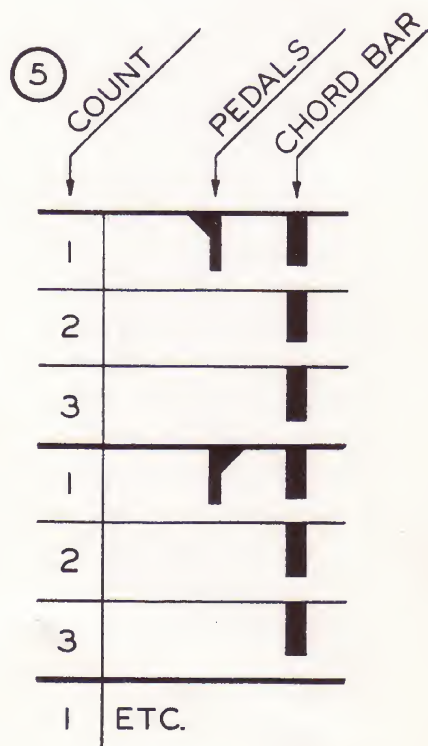
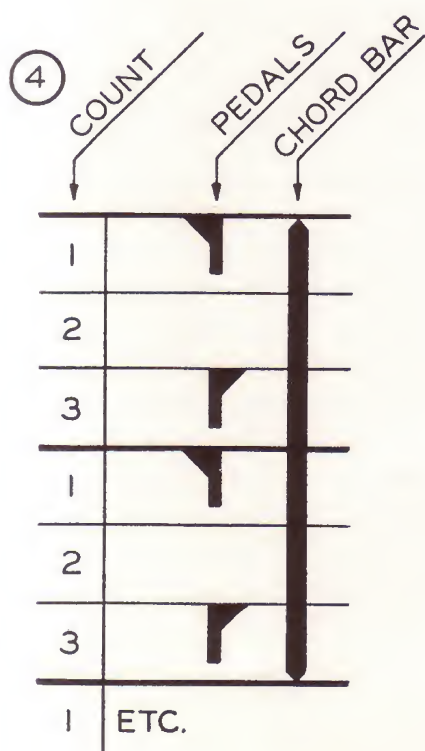
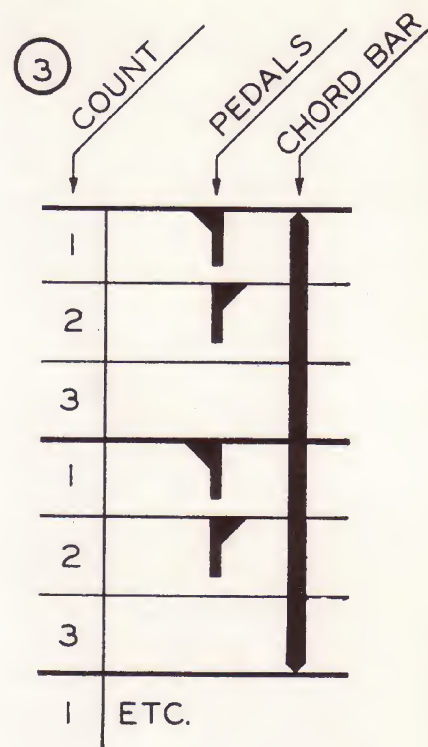
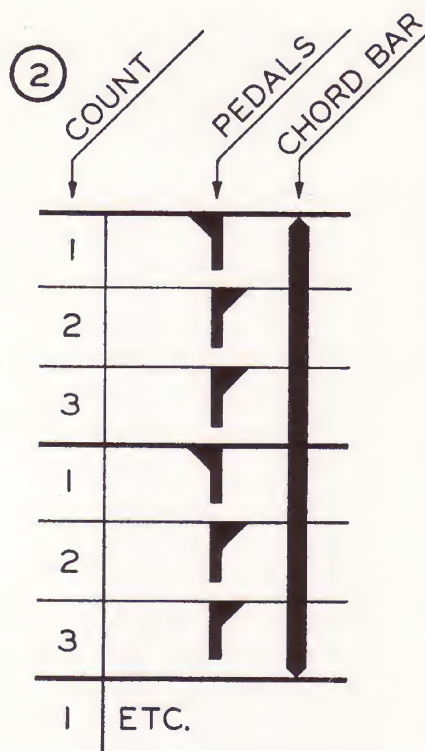
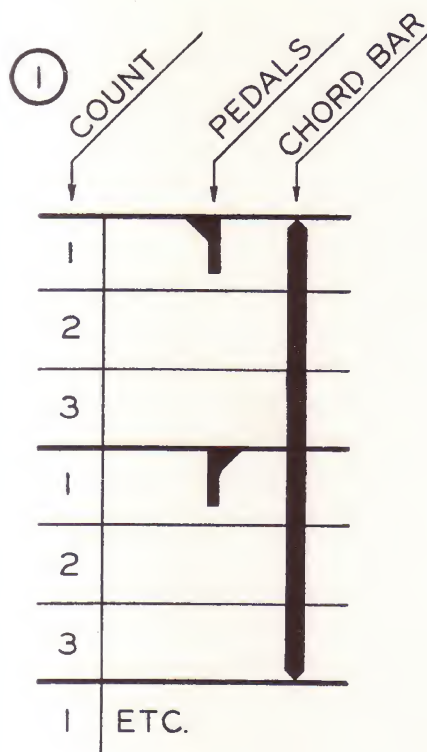
GENERAL RULES ABOUT RHYTHM PEDALING

- (1) In fox-trot time (count 4) the Left Pedal should always be used on the first count of the measure. Using this rule, a great many pieces may be played all the way through by merely alternating from the Left to the Right Pedal. A more advanced technique is not only to start each measure with the Left Pedal but also to use the Left Pedal each time there is a Chord Button change.
- (2) In waltz time (count 3), start the selection with the Left Pedal and also use it each time there is a Chord Button change. Between changes, you may alternate to the Right Pedal.

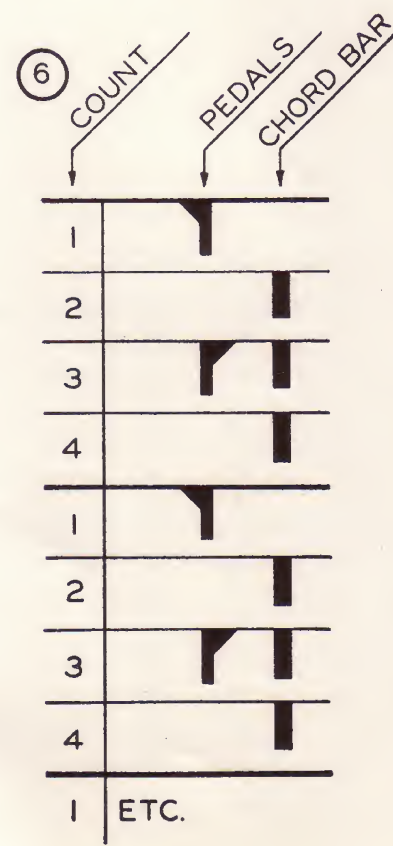
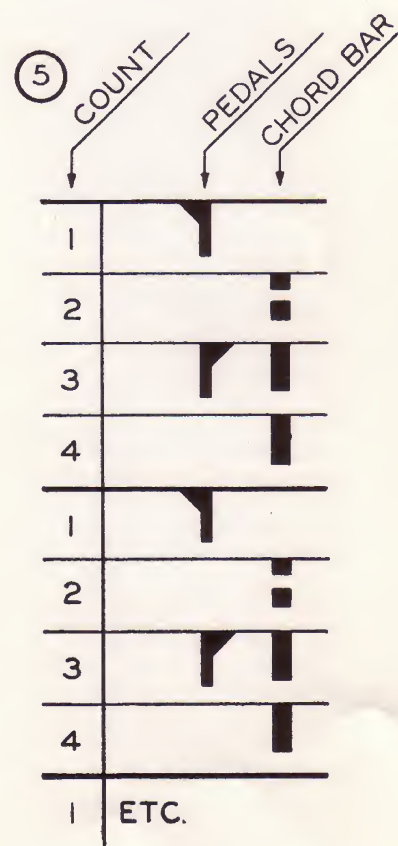
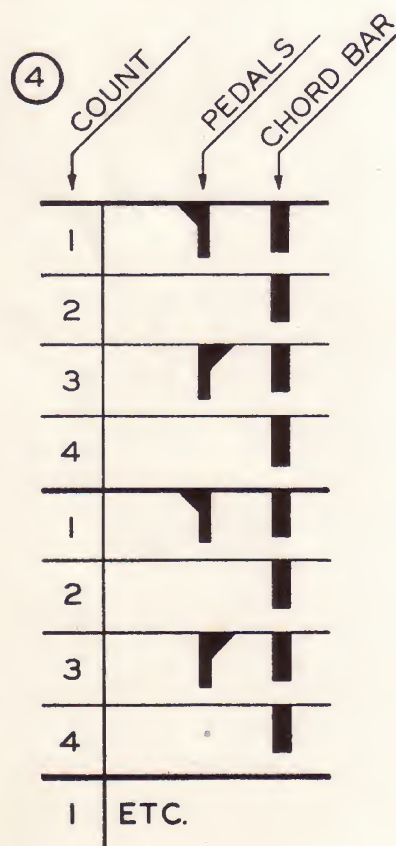
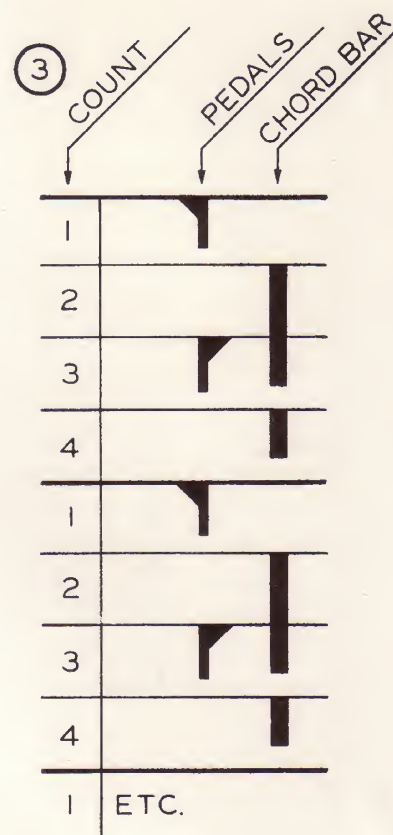
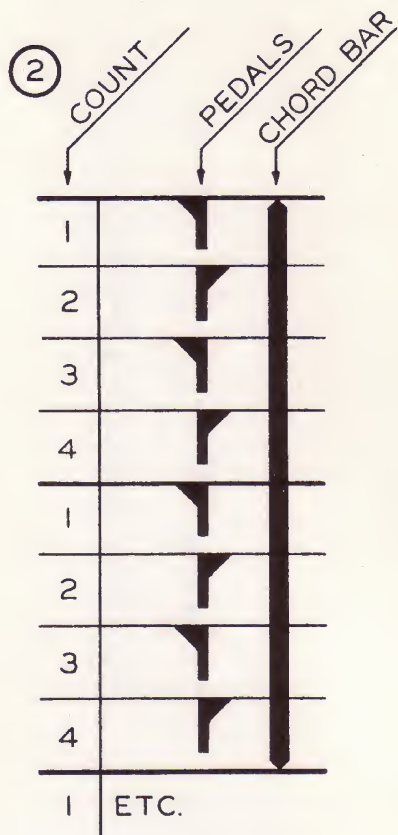
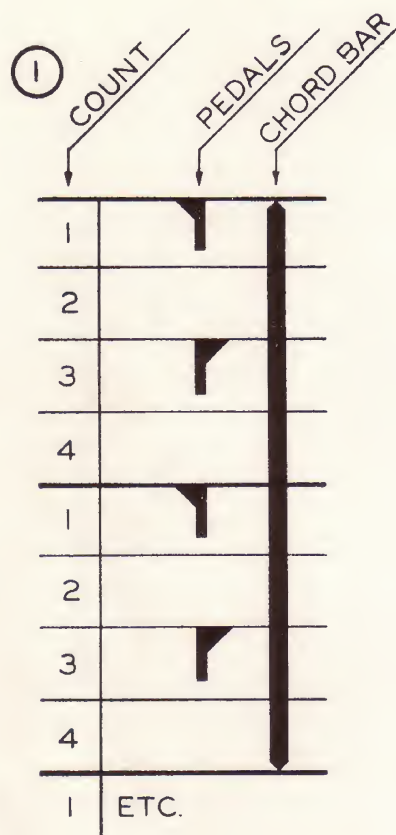
MORE RHYTHM PATTERNS

The following are the most popular rhythm patterns to use for fox-trots and waltzes. They are shown in the same form as used in the Picture Music. The Left and Right Pedals are indicated as vertical lines having corresponding left and right pointers. The Chord Bar is indicated as another vertical line to the right of the Pedal. The lengths of these lines indicate the duration of time to hold down the Pedals or Chord Bar. Note that the Chord Bar is held down continuously in many of the patterns. In learning these patterns, it is recommended that you count as you play. Practice these with various Chord Buttons until you can do them without effort. You will soon find that the motions with the foot and palm of the hand require no special thought. The only concentration required is to play the single melody note with the right hand and to depress the appropriate Chord Button with the left hand.

WALTZ RHYTHM PATTERNS (COUNT 3)



FOX-TROT RHYTHM PATTERNS (COUNT 4)



ADVANCED INSTRUCTIONS

FOR THE

HAMMOND CHORD ORGAN

The first and second half-hour instruction booklets contain all the information needed to play the entire library of music supplied with the Chord Organ. The following subjects are treated in this booklet:

PART I —Information regarding the operation of the instrument and its various stops.

PART II —Advice on how to treat unusual guitar chords found in popular sheet music.

PART III—Useful hints for enabling the player to improvise.

PART IV —A Chord Appendix for showing the pianist how to adapt classical piano music to the Chord Organ.

PART 1

The purpose of this part is to acquaint you with the function of each of the twenty **STOPS** and the three **BALANCERS**.

While each sheet of music supplied with the instrument does contain its own "registration" (selection of stops to be used), it is merely a suggestion. There are a great many other combinations of stops possible for any selection. You will find it very interesting to make your own selection of stops. By so doing you will be able to vary the tone and character of the instrument over an extremely wide range.

THE DIVISIONS OF THE CHORD ORGAN

The musician at the Chord Organ plays on:

- (1) a **KEYBOARD** for playing the melody.
- (2) a **CHORD DIVISION** for playing the accompaniment.

The **KEYBOARD** has these two tonal divisions which are available on all keys:

- (a) a **SOLO DIVISION** which is used practically all of the time as it has the greatest variety of tonalities in all pitch registers. As its name implies, this division plays only one note at a time. If several keys are held down at once, only the highest one will be heard on the Solo Division.
- (b) an **ORGAN DIVISION** which is independent of the solo division but is played by the same keys. Its tones augment those of the solo division, and also make it possible to play full chords with the right hand.

The **CHORD DIVISION** consists of these three parts:

- (a) 96 **CHORD BUTTONS** for selecting the appropriate chords to harmonize with the melody.
- (b) a **CHORD BAR** for either sounding or

accentuating the chord selected by the chord buttons.

- (c) two BASS PEDALS for producing deep bass notes corresponding to the chords selected with the chord buttons.

THE ORGAN STOPS AND BALANCERS

The twenty *Stops* control (1) the pitch range, tone quality, and attack of the solo division; (2) the tone quality of the organ and chord divisions; (3) the decay of the bass pedal tones; (4) the operation of the chord bar; (5) the vibrato for the various divisions; and (6) the overall volume of the instrument. The three *Balancers* regulate the volume of tone produced by the pedal, organ, and solo divisions with respect to the volume produced by the chord buttons. Normally, the three balancers should be turned so that their wording is horizontal.

The Solo Register Stops—

“Bass,” “Tenor,” and “Soprano”

These three stops control the pitch range of the solo division. When using BASS, the tones will be in the low register; TENOR will place them in a medium register; and SOPRANO will place them in a high register. The player may choose to use several of these stops simultaneously to produce a chorus of tones in octave relations.

The Solo Timbre Stops—

*“Deep Tone,” “Full Tone,” “First Voice,”
“Second Voice,” and “Brilliant”*

These five stops at the right end are used to modify the quality of the tones selected by the solo register stops. DEEP TONE provides a pure, mellow type of

tone whereas FULL TONE results in a generally useful bright quality. FIRST VOICE and SECOND VOICE function as musical resonators, and serve to emphasize various groups of overtones. These stops are admirably suited to produce beautiful solo voices of the horn type. BRILLIANT, as its name implies, produces a piercing quality, especially when used alone. The solo timbre stops may be used singly or in various combinations to produce a great variety of effects.

NOTE: At least one of the three solo register stops and at least one of the five solo timbre stops must be used in order to obtain a solo tone when playing on the keyboard.

“Solo Woodwinds” Stop

This stop changes the quality of the solo tones from the string or brass family to the clarinet or woodwind family. The particular qualities within these two groups are determined by the solo timbre stops employed.

“Solo Fast Attack” and “Solo Accent” Stops

When neither of these stops is used the tonal attack of the solo division is very gradual and is well-suited for playing slow-moving melodies such as ballads. When SOLO FAST ATTACK is used, the attack becomes very prompt and is useful for fast moving melodies. When SOLO ACCENT is used, the attack is *percussive*. Accents may be produced by playing in a slightly detached manner.

The Organ Stops— “Strings” and “Flutes”

These two stops control the voices of the organ division, which is playable from the keyboard. When neither

is used, the organ division will be silent, leaving only the solo division. When STRINGS is used, the organ tones will be very brilliant; with FLUTES, the organ tones will be very mellow and pure; when both are used, the effect is additive and a full rich quality is obtained.

*The Chord Stops—"Sustain Cancel,"
"Mute," and "Pedal Fast Decay"*

SUSTAIN CANCEL removes the relatively soft tonal background which is normally produced by pressing only a chord button. This stop is arranged to cancel the sustained background rather than to add it because the background is usually desired. When this stop is used, the various rhythm patterns produced with the chord bar and pedals are more pronounced.

MUTE is effective to render the chord button tones more mellow.

PEDAL FAST DECAY is used to obtain a more percussive pedal tone. When it is used, the bass tone will fade away very rapidly whenever a pedal is released.

The Vibrato Cancel Stops

There are three Vibrato Cancel stops: ORGAN AND CHORDS, SOLO WIDE, and SOLO SMALL. Do not be confused by the word "cancel"—it simply means that the vibrato effect is removed when these stops are pushed in at the bottom. They are arranged to cancel the vibrato effect rather than to add it because the vibrato is normally desired.

Listen to each division with the three vibrato cancel stops pushed in at the top and note that the vibrato imparts a smooth, rich, string-like tonal warmth. A wide vibrato is desirable for such qualities as violin and cello, while orchestral solo instruments, such as the oboe, clarinet, and flute, sound best with a small vibrato. For some

purposes, however, you may wish to take the vibrato completely off, particularly for qualities resembling the church organ.

The ORGAN AND CHORDS vibrato cancel stop removes the vibrato from the chord button and pedal tones as well as from the organ string and flute tones.

With both SOLO SMALL and SOLO WIDE pressed in at the *top* you hear the maximum vibrato effect on the solo division. Pressing both stops in at the *bottom* causes the vibrato to disappear. To get a small solo vibrato, press only SOLO SMALL in at the top, and for a medium solo vibrato, press only SOLO WIDE in at the top.

Many lovely composite tonal effects may be had by opposite settings of the vibrato stops; that is, by using a vibrato effect on the solo division but not on the organ division.

"Volume Soft" Stop

The player will find that soft music of great beauty can be obtained by using this stop. It may also be used to advantage when playing in a small room or when practicing. As an overall volume adjustment, it serves to reduce the volume without losing the full range of the expression control.

NOTE: You will find it helpful to remember that all the solo division stops are grouped together at the right starting with the SOLO WIDE vibrato cancel stop.

Volume Balancers—

"Pedal," "Organ," "Solo"

These three knobs regulate the respective volumes of the bass pedals, organ division, and solo division relative

to the volume of the chord button tones (for which there is no balancer). The chord button tones are made more prominent by reducing the volume of the other divisions with the three balancers.

If the particular selection being played is enhanced by having the bass part prominent, it may be made so by turning the pedal balancer to the right (clockwise). The organ or solo division tones may be emphasized similarly.

You will find that the most generally useful balance is obtained when the wording on all the knobs is horizontal.

SOME INTERESTING STOP COMBINATIONS

The following is a partial list of interesting combinations of stops. Try using them for the selections that you have already learned, and notice how the character of the music may be greatly varied by using different combinations. In trying each combination be sure that the unlisted stops are pushed in at the top.

I. For playing Ballads, Folk Music, Melodic Popular Music, etc.:

1. Strings	5. Flutes	8. Strings
Flutes	Solo Wide	Flutes
Bass	Vibrato Cancel	Bass
Deep Tone	Solo Small	Tenor
Full Tone	Vibrato Cancel	Soprano
	Soprano	Deep Tone
2. Strings	Woodwinds	Brilliant
Tenor	Full Tone	
Full Tone		
		9. Mute
3. Flutes	6. Mute	Strings
Soprano	Flutes	Soprano
Woodwinds	Bass	Woodwinds
Full Tone	Second Voice	Full Tone
4. Flutes	7. Strings	10. Mute
Strings	Flutes	Flutes
Bass	Bass	Bass
Tenor	Tenor	Woodwinds
Soprano	Soprano	Deep Tone
Deep Tone	Deep Tone	
Full Tone		

II. For playing Operatic, Symphonic, and other Classical Music:

11. Strings	16. Mute
Organ and Chords	Strings
Vibrato Cancel	Organ and Chords
Solo Wide Vibrato Cancel	Vibrato Cancel
Solo Small Vibrato Cancel	Solo Wide Vibrato Cancel
Tenor	Solo Small Vibrato Cancel
Full Tone	Bass
Brilliant	Woodwinds
	Second Voice
12. Strings	
Solo Wide Vibrato Cancel	
Solo Small Vibrato Cancel	17. Mute
Soprano	Strings
Woodwinds	Organ and Chords
Full Tone	Vibrato Cancel
	Solo Wide Vibrato Cancel
13. Strings	Solo Small Vibrato Cancel
Flutes	Soprano
Organ and Chords	Woodwinds
Vibrato Cancel	Full Tone
Solo Wide Vibrato Cancel	
Solo Small Vibrato Cancel	
Tenor	18. Flutes
Woodwinds	Organ and Chords
Second Voice	Vibrato Cancel
	Solo Wide Vibrato Cancel
14. Mute	Solo Small Vibrato Cancel
Flutes	Bass
Organ and Chords	Woodwinds
Vibrato Cancel	Deep Tone
Solo Wide Vibrato Cancel	First Voice
Bass	
Second Voice	
Brilliant	19. Flutes
	Organ and Chords
15. Mute	Vibrato Cancel
Flutes	Solo Wide Vibrato Cancel
Organ and Chords	Solo Small Vibrato Cancel
Vibrato Cancel	Bass
Solo Wide Vibrato Cancel	Deep Tone
Bass	Second Voice
First Voice	

III. For playing Hymns and other Church Music:

- | | |
|---------------------------|---------------------------|
| 20. Strings | 22. Strings |
| Flutes | Flutes |
| Organ and Chords | Organ and Chords |
| Vibrato Cancel | Vibrato Cancel |
| Solo Wide Vibrato Cancel | Solo Wide Vibrato Cancel |
| Solo Small Vibrato Cancel | Solo Small Vibrato Cancel |
| Bass | Bass |
| Tenor | Tenor |
| Soprano | Soprano |
| Fast Attack | Fast Attack |
| Deep Tone | Deep Tone |
| | Full Tone |
| 21. Mute | |
| Flutes | |
| Organ and Chords | |
| Vibrato Cancel | |
| Solo Wide Vibrato Cancel | |
| Bass | |
| Soprano | |
| Fast Attack | |
| Deep Tone | |

IV. For Playing Fast-Moving Popular Music, Jazz, Novelty Styles, etc.:

- | | |
|---------------------------|---------------------------|
| 23. Strings | 26. Mute |
| Flutes | Strings |
| Bass | Flutes |
| Tenor | Solo Wide Vibrato Cancel |
| Soprano | Solo Small Vibrato Cancel |
| Accent | Bass |
| Deep Tone | Accent |
| Full Tone | Second Voice |
| | Brilliant |
| 24. Sustain Cancel | 27. Flutes |
| Pedal Fast Decay | Organ and Chords |
| Flutes | Vibrato Cancel |
| Organ and Chords | Bass |
| Vibrato Cancel | Woodwinds |
| Solo Wide Vibrato Cancel | Accent |
| Solo Small Vibrato Cancel | Second Voice |
| Bass | |
| Accent | 28. Sustain Cancel |
| Brilliant | Pedal Fast Decay |
| | Solo Wide Vibrato Cancel |
| | Solo Small Vibrato Cancel |
| | Tenor |
| | Accent |
| | Second Voice |
| | Brilliant |
| 25. Strings | |
| Flutes | |
| Bass | |
| Soprano | |
| Fast Attack | |
| Full Tone | |

The following combinations involve the solo stops only, and are imitative of the various well-known orchestral instruments. While trying these suggestions, be sure that all unlisted stops are pushed in at the top.

Orchestral Strings

- | | | |
|---------------|-----------|--------------------|
| 29. VIOLIN I | 31. VIOLA | 33. DOUBLE BASS I |
| Soprano | Tenor | Bass |
| Deep Tone | Full Tone | Full Tone |
| Brilliant | | |
| | 32. CELLO | 34. DOUBLE BASS II |
| | Tenor | Bass |
| 30. VIOLIN II | Deep Tone | Deep Tone |
| Soprano | Full Tone | Full Tone |
| Brilliant | | |

Orchestral Brasses

- | | |
|---------------------------|---------------------------|
| 35. TRUMPET | 37. CORNET |
| Solo Wide Vibrato Cancel | Solo Wide Vibrato Cancel |
| Solo Small Vibrato Cancel | Tenor |
| Tenor | Deep Tone |
| Fast Attack | Second Voice |
| Second Voice | |
| | 38. TUBA |
| | Solo Wide Vibrato Cancel |
| | Solo Small Vibrato Cancel |
| | Bass |
| | Deep Tone |
| | |
| 36. TRUMPET WITH VIBRATO | |
| Tenor | |
| Second Voice | |

Orchestral Woodwinds and Horns

- | | |
|--------------------------------|-----------------------------------|
| 39. ALTO CLARINET | 42. BASS CLARINET I WITH VIBRATO |
| Solo Wide Vibrato Cancel | Bass |
| Solo Small Vibrato Cancel | Woodwinds |
| Tenor | Deep Tone |
| Woodwinds | First Voice |
| Full Tone | |
| 40. ALTO CLARINET WITH VIBRATO | 43. BASS CLARINET II |
| Tenor | Solo Wide Vibrato Cancel |
| Woodwinds | Solo Small Vibrato Cancel |
| Full Tone | Bass |
| | Woodwinds |
| | Full Tone |
| | Second Voice |
| 41. BASS CLARINET I | 44. BASS CLARINET II WITH VIBRATO |
| Solo Wide Vibrato Cancel | Bass |
| Solo Small Vibrato Cancel | Woodwinds |
| Bass | Full Tone |
| Woodwinds | Second Voice |
| Deep Tone | |
| First Voice | |

45. FLUTES

Solo Wide Vibrato Cancel
Solo Small Vibrato Cancel
Soprano
Woodwinds
Brilliant

46. OBOE I

Solo Wide Vibrato Cancel
Tenor
Second Voice
Brilliant

47. OBOE II

Solo Wide Vibrato Cancel
Solo Small Vibrato Cancel
Tenor
Brilliant

48. BASSOON

Solo Wide Vibrato Cancel
Solo Small Vibrato Cancel
Bass
First Voice
Brilliant

49. OBOE HORN

Solo Wide Vibrato Cancel
Solo Small Vibrato Cancel
Tenor
First Voice

50. ENGLISH HORN

Solo Wide Vibrato Cancel
Solo Small Vibrato Cancel
Bass
Second Voice
Brilliant

51. PICCOLO

Solo Wide Vibrato Cancel
Solo Small Vibrato Cancel
Soprano
Woodwinds
Fast Attack
Full Tone

52. MUTED HORN

Solo Wide Vibrato Cancel
Solo Small Vibrato Cancel
Bass
First Voice

53. MUTED HORN WITH VIBRATO

Bass
First Voice

Other Orchestral Combinations

54. TENOR SAXOPHONE

Bass
Deep Tone

55. ALTO SAXOPHONE

Tenor
Deep Tone

56. SOPRANO SAXOPHONE

Soprano
Deep Tone

57. BARITONE SAXOPHONE

Bass
Tenor
Woodwinds
Deep Tone

58. BASS SAXOPHONE

Solo Wide Vibrato Cancel
Bass
Deep Tone
Brilliant

59. FRENCH HORN

Solo Wide Vibrato Cancel
Bass
First Voice

60. WALT HORN

Solo Wide Vibrato Cancel
Bass
Deep Tone

61. BAG PIPES

Solo Wide Vibrato Cancel
Solo Small Vibrato Cancel
Bass
Tenor
Second Voice
Brilliant

PART 2

The purpose of this part is to show you how to play popular songs from standard piano sheet music. Nearly every sheet of popular music which is now published contains guitar Chord Names which are written above the vocal staff. The guitar Chord Names are, for the most part, similar to the Chord Names used for the chord buttons.

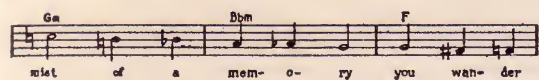
Thus, the left hand selects the chord buttons from the guitar chord notations and the right hand plays the melody from the vocal staff. The two lower piano accompaniment staves may be disregarded.

In using the guitar Chord Names, however, one must bear in mind that the guitar is an entirely different type of instrument than the Chord Organ. The guitar is used chiefly as an accompaniment instrument to a singer.

To aid the singer, the guitarist makes every effort to play the melody note along with the harmony chord whenever possible. Thus, the melody note is frequently contained in the guitar Chord Names. Because of this, the guitar chord notation system has become quite complicated. Furthermore, the number of guitar chords shown on a sheet of popular music is often many more than are actually needed to accompany the melody. To illustrate, here is an excerpt from the selection "Deep Purple" which shows the guitar Chord Names used:—

The image shows a musical score for the song "Deep Purple". At the top, a series of guitar chord names are listed: Gm(susC), Dgln, Gms, Bbm, Bbm6, Am7, Cdim, and F#m. Below these, the musical notation is shown. The top staff is the vocal melody, with lyrics: "mist of a mem o ry you wan - der", "ers le brill - and se mar -". The bottom two staves are the piano accompaniment. Labels with arrows point to the different parts: "GUITAR CHORD NAMES" points to the top line of chords, "MELODY (PLAY WITH RIGHT HAND)" points to the vocal staff, and "PIANO ACCOMPANIMENT (MAY BE DISREGARDED)" points to the bottom two staves.

Below is shown the same excerpt from the "lead sheet" type of music preferred by professional musicians:—



Notice that a large number of chords have been omitted. This is because most of these chords automatically follow from playing the melody separately, using the standard accompaniment chords. The melody note plus the standard accompaniment chord results in the more intricate guitar Chord Names. For example, a melody "B" note accompanied by a C MAJOR chord is scored as a guitar C MAJOR SEVENTH chord (C-E-G-B). Likewise, an "A" melody note accompanied by a C MINOR chord is scored as the guitar C MINOR SIXTH chord (C-Eb-G-A). From this, it follows that when the melody note is considered in naming the guitar chords, there are an indefinitely large number of possible guitar Chord Names. Sometimes the guitar Chord Names become so complicated that it has become necessary to write in the extra melody note to play as, for instance:—

Bb7 (add G); Eb9 (bF); G7 (add Eb);
Cm7 (+F); Bb7 (+Eb); Gm6 (susA).

From the above, we see that while the number of guitar Chord Names may be very great, the identical harmonies are produced on the Chord Organ by accompanying an independent melody note with a standard chord. The eight types of chords provided on the Chord Organ are sufficient for all musical selections.

When a selection is especially arranged for the Chord Organ, the number of chords is relatively few, and the resulting music sheet corresponds closely to the "lead sheet" preferred by professional musicians. Con-

sequently when playing your chord buttons from guitar Chord Names, we recommend that you take a red pencil and encircle those that are usable and mark in substitutions for the others. The following is a list showing a few of the possible guitar Chord Names which you may find new to you on sheet music together with the equivalent chord buttons to use on the Chord Organ. Note that there is some variation in the type of Chord Name used by different guitarists for the same chord.

The chords in the table below are all shown as "C" chords but, of course, can also have designations in any of the eleven other keys. Also remember that:—

C# and Db are the same.

D# and Eb are the same.

F# and Gb are the same.

G# and Ab are the same.

A# and Bb are the same.

EQUIVALENT GUITAR CHORD TABLE

(Shown for key of C but applicable to any key.)

<i>Guitar Chord Designation</i>	<i>Equivalent Chord Button to use on the Chord Organ</i>
Csus3.....	C
Cmin, Cmi.....	Cm
C+5, C5+.....	C+
C°, Co, Cdim.....	C-
C VI.....	C6
Cmaj7, Cma7, C7h.....	C
Cm6, Cmi6, Cmin6, CmVI.....	Cm
C7-5, C7b5.....	C7
C7+5, C7#5, C+7, C7+, C7aug.....	C+
C75+, C75aug.....	C+
C7-9, C7b9, C7°, C7-9.....	C7
C7-9+5, C7b9+5, C+7-9, C+7b9, C+7°, C7+b9.....	C+

C7-9-5, C7 ^b 9, C7 ⁹ _{b5} , C7 ⁹ _b . C7	
C7sus, C7(sus4), C47..... C7 or Cm7 or B ^b 6 (count two rows to the left)	
C7alt..... Gm7 (count one row to the right)	
C7sus3..... C7	
C7+ ^b 5..... C+	
C7+, C+7, C7aug..... C+	
C7 ^b 5..... F#7 (count six rows to the right)	
Cm7 ^b 5, Cm ⁻⁵ ₇ , Cm ^{b5} ₇ Cm7 or A ^b 9 (count four rows to the left)	
C9+5, C9+, C+9, C9aug., C9#5..... C+	
C+ ^b 9, C+-9..... C+	
C ⁹ ₇ C7 or C9	
C9-5, C9 ^b 5..... C9 or C-	
C+9, C9+..... C+	
C9 ^b , C-9, C9-..... C7	
C ⁹ ₆ , C ⁶ ₉ C6	
Cm9..... Cm7	
C9+ ^b 9, C9+-9..... C+	
C6+9..... C9	
Cmaj9..... C	
C9maj7..... C	
C11..... C9 or C7	
C13..... C7	
C ⁹ ₁₃ , C ¹³ ₉ C7	
C ¹³ ₋₉ , C ¹³ _{b9} C7	

NOTE No. 1: Observe that the key designation for a few of the guitar chords is different for the equivalent chords on the Chord Organ. In each of these cases, a parenthetical phrase tells you how many rows to count over. As shown in the table, guitar chord C7^b₅

is equivalent to F#7 (count 6 rows to the right). When using this information for keys other than "C," you may find that you run off one end of the chord buttons. In this event, merely continue counting starting with the other end of the chord buttons as your next row. For example, D7^b₉ is equivalent to A^b7 (count to the right 4 rows from "D" to the right end of the chord buttons, and 2 more rows to the right from the left end of the chord buttons thus bringing you to the "A^b" row—six rows to the right in all).

NOTE No. 2: In order to conform to the staff signature, some guitarists insert a natural sign as: Bⁿm7, Eⁿ7, etc. You may disregard the natural signs and play Bm7, E7, etc.

NOTE No. 3: Occasionally you will see this sort of a sequence of chords:

C	add 6	F	add 9
---	-------	---	-------

Play C6 where the score reads "add 6" and F9 where the score reads "add 9." In other words, use the key designation of the previous chord.

NOTE No. 4: From the table, you can see that most guitar chords which have augmented intervals (use a "+" or "#" sign) are equivalent to the AUGMENTED chord on the Chord Organ. This, of course, does not refer to the "#" sign in the key designation of the Chord Names (F#7, C#m, etc.).

NOTE No. 5: Occasionally you may find the Chord Name "dim." without any key designation. This simply means to use the DIMINISHED chord which is built on the melody note. For example, if the melody note is "C," use the "C" DIMINISHED chord button.

PART 3

The purpose of this part is to show you how to find the correct chord button to accompany a melody that you can already play on the keyboard. Also, the hints and tables which follow will help you in selecting the chord buttons to use with a melody from a sheet of piano or vocal music which does not specify the chord names. This information, of course, does not cover all cases, but nevertheless will enable you to harmonize most of the melody notes occurring in your music. Within these tables are the rudiments of musical harmony theory. If you will practice using them you will soon acquire a natural "feel" for the correct chord buttons. It will then be just as easy to find the chord buttons as it is to "pick-out" the melody on the keyboard.

THE MOST FREQUENTLY USED CHORDS

As pointed out in the "Second Half-Hour Instructions," you will be using only 3 of the 96 chord buttons over half of the time when playing the average piece. Furthermore, it will always be these same three buttons for any piece when played in the same key. The No. 2 chord is the most important and most frequently used chord. Not only is it found very often within the selection, but it almost always occurs at the beginning and end of a composition.

The next most important chord is the No. 3 chord. This chord is the one which most frequently precedes the No. 2 chord at the end of a selection.

The next most important chord is the No. 1 chord. The familiar "Amen" at the end of hymns is the progression of the No. 1 chord to the No. 2 chord. It is used several times in practically every melody.

The following is a list of the 10 most commonly used chords (arrived at by analyzing a large library of music) with the percentage indicating approximately how much of the time each is used.

Chord No.	Percentage
2	25%
3	20%
1	12%
4	10%
5	5%
6	3%
5m	2%
4m	2%
6m	1%
3+	1%

All other chords, less than $\frac{1}{2}\%$ each.

By looking over this list, you will see that most of the chords lie in a "home area" in which they are designated by the NUMBER system. Of course, there are occasional reaches to more distant buttons, in which case the chords are designated by their Chord Names. As pointed out in the "Second Half-Hour Instructions," the "home area" will shift to the right or left when playing in different keys, but the relative location of the principal chords will be the same when playing in any of the usual keys. This makes it easy to finger the chord buttons, as they "feel" the same in the "home area" for any key. It is for this reason that the chord buttons are arranged in fifths (F, C, G, D, E, etc.) instead of chromatically (C, C#, D, D#, E, etc.)

PIECES IN MINOR KEYS:

When playing in a minor key, the most important chord is 2m instead of 2, and 1m is used in place of 1. The relative importance of the other chords remains the same.

CHORD PROGRESSIONS

The chord progressions in music frequently follow set patterns. For instance, the chords of a popular song may start with the No. 2 chord and use the No. 3 chord at the end of the eighth measure. The second set of eight measures may start with the No. 1 chord and finish with the "27" chord. In the third set of eight measures, the No. 5 chord is sometimes followed by the No. 4 chord leading back to the No. 3 chord for several measures. The fourth set of eight measures may be like the first eight measures except for ending with the No. 2 chord.

The following is a list of the most commonly used chord progressions:

2 may be followed by 3, 1, 4, 5m, 4m, 3+, 6, or 3—

3 may be followed by 2, 6, 1, or 3+

1 may be followed by 2

4 may be followed by 3

5 may be followed by 4 or 4m

6 may be followed by 5m or 5

5m may be followed by 4

4m may be followed by 3

6m may be followed by 2

3+ may be followed by 2

3— may be followed by 3

From the above, we see that chords very frequently progress consecutively to the left. For example, here is a very frequently used progression: 6, 5m, 4, 3, 2.

USING THE MELODY CHORD TABLES

In the following tables, the chords most used are listed (from left to right in order of their probability) for each of the twelve possible melody notes in the common major keys. A chart for the remote key of F# major (6 sharps) is also included for the benefit of the player who is not accustomed to reading notes, but who has learned to play mostly on the black keys by ear. The melody notes are listed at the left. For example, if you are playing in the key of C major and are harmonizing an "E" melody note, first try the No. 2 chord. If this does not sound right, try in order 5m, 6, 6m, 3—, or 4. One of these chords will usually be correct. Do not try to change chords too often. The short "passing" melody notes are not usually harmonized individually.

KEY OF C

(Try in order from left to right)

<i>Melody Note</i>	<i>Probable Harmonizing Chords</i>
C	2, 1, 4, 5m, 27, Ab7, 1m, 2—
D \flat (or C#)	5, 3—, D \flat , B \flat m
D	3, 4, 3mj, 1, 4m, 6, 1m, 3m, 2
E \flat (or D#)	3+, 2m, 2—, 17, Ab7, B7, 3
E	2, 5m, 6, 5, 6m, 3—, 4
F	1, 3, 4m, 1m, B \flat 7
F# (or G \flat)	4, 2—, B7, 6
G	3, 2, 3mj, 27, 6m, 3—, 5, 3+
A \flat (or G#)	6, Ab7, 2+, 1m
A	1, 2, 3, 4, 5, 5m, 4m, 17, B7
B \flat (or A#)	27, B \flat 7, 3—
B	3, 6m, 2, B7, 6, 3mj, 3+

KEY OF F (1 FLAT)

(Try in order from left to right)

<i>Melody Note</i>	<i>Probable Harmonizing Chords</i>
F	2, 1, 4, 5m, 27, Db7, 1m, 2—
Gb (or F#)	5, 3—, F#, Ebm
G	3, 4, 3mj, 1, 4m, 6, 1m, 3m, 2
Ab (or G#)	3+, 2m, 2—, 17, Db7, E7, 3
A	2, 5m, 6, 5, 6m, 3—, 4
Bb (or A#)	1, 3, 4m, 1m, Eb7
B	4, 2—, E7, 6
C	3, 2, 3mj, 27, 6m, 3—, 5, 3+
Db (or C#)	6, Db7, 2+, 1m
D	1, 2, 3, 4, 5, 5m, 4m, 17, E7
Eb (or D#)	27, Eb7, 3—
E	3, 6m, 2, E7, 6, 3mj, 3+

KEY OF Bb (2 FLATS)

(Try in order from left to right)

<i>Melody Note</i>	<i>Probable Harmonizing Chords</i>
Bb (or A#)	2, 1, 4, 5m, 27, F#7, 1m, 2—
B	5, 3—, B, Abm
C	3, 4, 3mj, 1, 4m, 6, 1m, 3m, 2
Db (or C#)	3+, 2m, 2—, 17, F#7, A7, 3
D	2, 5m, 6, 5, 6m, 3—, 4
Eb (or D#)	1, 3, 4m, 1m, Ab7
E	4, 2—, A7, 6
F	3, 2, 3mj, 27, 6m, 3—, 5, 3+
F# (or Gb)	6, F#7, 2+, 1m
G	1, 2, 3, 4, 5, 5m, 4m, 17, A7
Ab (or G#)	27, Ab7, 3—
A	3, 6m, 2, A7, 6, 3mj, 3+

KEY OF G (1 SHARP)

(Try in order from left to right)

<i>Melody Note</i>	<i>Probable Harmonizing Chords</i>
G	2, 1, 4, 5m, 27, Eb7, 1m, 2—
Ab (or G#)	5, 3—, Ab, Fm
A	3, 4, 3mj, 1, 4m, 6, 1m, 3m, 2
Bb (or A#)	3+, 2m, 2—, 17, Eb7, F#7, 3
B	2, 5m, 6, 5, 6m, 3—, 4
C	1, 3, 4m, 1m, F7
Db (or C#)	4, 2—, F#7, 6
D	3, 2, 3mj, 27, 6m, 3—, 5, 3+
Eb (or D#)	6, Eb7, 2+, 1m
E	1, 2, 3, 4, 5, 5m, 4m, 17, F#7
F	27, F7, 3—
F# (or Gb)	3, 6m, 2, F#7, 6, 3mj, 3+

KEY OF Eb (3 FLATS)

(Try in order from left to right)

<i>Melody Note</i>	<i>Probable Harmonizing Chords</i>
Eb (or D#)	2, 1, 4, 5m, 27, B7, 1m, 2—
E	5, 3—, E, Dbm
F	3, 4, 3mj, 1, 4m, 6, 1m, 3m, 2
F# (or Gb)	3+, 2m, 2—, 17, B7, D7, 3
G	2, 5m, 6, 5, 6m, 3—, 4
Ab (or G#)	1, 3, 4m, 1m, Db7
A	4, 2—, D7, 6
Bb (or A#)	3, 2, 3mj, 27, 6m, 3—, 5, 3+
B	6, B7, 2+, 1m
C	1, 2, 3, 4, 5, 5m, 4m, 17, D7
Db (or C#)	27, Db7, 3—
D	3, 6m, 2, D7, 6, 3mj, 3+

KEY OF Ab (4 FLATS)

(Try in order from left to right)

<i>Melody Note</i>	<i>Probable Harmonizing Chords</i>
Ab (or G#)	2, 1, 4, 5m, 27, E7, 1m, 2—
A	5, 3—, A, F#m
Bb (or A#)	3, 4, 3mj, 1, 4m, 6, 1m, 3m, 2
B	3+, 2m, 2—, 17, E7, G7, 3
C	2, 5m, 6, 5, 6m, 3—, 4
Db (or C#)	1, 3, 4m, 1m, F#7
D	4, 2—, G7, 6
Eb (or D#)	3, 2, 3mj, 27, 6m, 3—, 5, 3+
E	6, E7, 2+, 1m
F	1, 2, 3, 4, 5, 5m, 4m, 17, G7
F# (or Gb)	27, F#7, 3—
G	3, 6m, 2, G7, 6, 3mj, 3+

KEY OF D (2 SHARPS)

(Try in order from left to right)

<i>Melody Note</i>	<i>Probable Harmonizing Chords</i>
D	2, 1, 4, 5m, 27, Bb7, 1m, 2—
Eb (or D#)	5, 3—, Eb, Cm
E	3, 4, 3mj, 1, 4m, 6, 1m, 3m, 2
F	3+, 2m, 2—, 17, Bb7, Db7, 3
F# (or Gb)	2, 5m, 6, 5, 6m, 3—, 4
G	1, 3, 4m, 1m, C7
Ab (or G#)	4, 2—, Db7, 6
A	3, 2, 3mj, 27, 6m, 3—, 5, 3+
Bb (or A#)	6, Bb7, 2+, 1m
B	1, 2, 3, 4, 5, 5m, 4m, 17, Db7
C	27, C7, 3—
Db (or C#)	3, 6m, 2, Db7, 6, 3mj, 3+

KEY OF F# (6 SHARPS)

(Try in order from left to right)

<i>Melody Note</i>	<i>Probable Harmonizing Chords</i>
F# (or Gb)	2, 1, 4, 5m, 27, D7, 1m, 2—
G	5, 3, G, Em
Ab (or G#)	3, 4, 3mj, 1, 4m, 6, 1m, 3m, 2
A	3+, 2m, 2—, 17, D7, F7, 3
Bb (or A#)	2, 5m, 6, 5, 6m, 3—, 4
B	1, 3, 4m, 1m, E7
C	4, 2—, F7, 6
Db (or C#)	3, 2, 3mj, 27, 6m, 3—, 5, 3+
D	6, D7, 2+, 1m
Eb (or D#)	1, 2, 3, 4, 5, 5m, 4m, 17, F7
E	27, E7, 3—
F	3, 6m, 2, F7, 6, 3mj, 3+

MODERN HARMONIES

In playing modern music, you may prefer to substitute the MAJOR+6 chord for the MAJOR chords and the NINTH chord for the SEVENTH chords. These somewhat dissonant chords are frequently found in the compositions of Debussy and are now employed a great deal in modern orchestrations.

PART 4

CHORD APPENDIX

The information which follows is specifically directed to the advanced pianist to enable him to adapt standard piano music to the Chord Organ. Classical music does not contain Chord Names, and so the chief task here is to "glean the harmony" from the piano accompaniment. The melody is relatively easy to determine. It is usually the highest note for the right hand.

HOW TO USE THE CHORD CHARTS

The charts which follow show you the chord notes corresponding to the various chord buttons. They also tell you which root bass note sounds when the left pedal is depressed. For example, when the G SEVENTH chord is used, the notes G, B, D, and F are heard together with a low G bass note. As these notes may be scored in any inversion on either clef of the piano score, the Chord Charts show them in several locations on both clefs.

In determining which chord button to use, first observe the bass note on the first beat of the measure. For instance, if it is a C note, the chord button to use is likely to be one of the C chords. If other accompaniment notes are E and G, the chord is C MAJOR. If they are E \flat and G, the chord is C MINOR. If they are E, G, and B \flat , the chord is C SEVENTH. If they are E and G \sharp , the chord is C AUGMENTED. If they are E \flat , F \sharp , and A, the chord is C DIMINISHED, etc. In using the chord charts, bear in mind that any "sharp" note may also be expressed as a "flat" note and vice-versa. For example, the C \sharp MINOR chord (C \sharp , E, and G \sharp), is the same as the D \flat MINOR chord (D \flat , F \flat , and A \flat).

Some of the more difficult piano scores will also contain other accompaniment notes in the form of "passing-notes." No attention should be paid to these in determining which chord button to use.

C CHORDS

C major	C minor	C seventh	C diminished
C augmented	C minor 7th	C major + 6th	C ninth

Db CHORDS

Db major	Db minor	Db seventh	Db diminished
Db augmented	Db minor 7th	Db major + 6th	Db ninth

D CHORDS

D major	D minor	D seventh	D diminished
D augmented	D minor 7th	D major + 6th	D ninth

E_b CHORDS

E_b major	E_b minor	E_b seventh	E_b diminished
E_b augmented	E_b minor 7th	E_b major + 6th	E_b ninth

E CHORDS

E major	E minor	E seventh	E diminished
E augmented	E minor 7th	E major + 6th	E ninth

F CHORDS

F major	F minor	F seventh	F diminished
F augmented	F minor 7th	F major + 6th	F ninth

F# CHORDS

F# major	F# minor	F# seventh	F# diminished
F# augmented	F# minor 7th	F# major + 6th	F# ninth

G CHORDS


G major	G minor	G seventh	G diminished
G augmented	G minor 7th	G major + 6th	G ninth

A \flat CHORDS

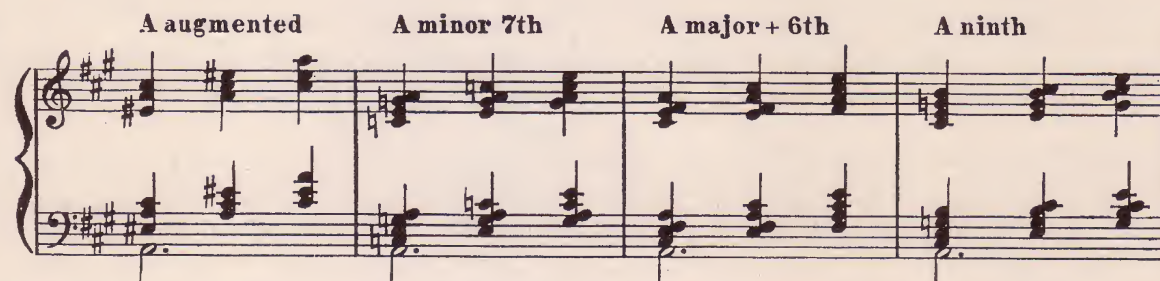
A \flat major	A \flat minor	A \flat seventh	A \flat diminished
A \flat augmented	A \flat minor 7th	A \flat major + 6th	A \flat ninth

A CHORDS

A major A minor A seventh A diminished



A augmented A minor 7th A major + 6th A ninth



Bb CHORDS

Bb major Bb minor Bb seventh Bb diminished



Bb augmented Bb minor 7th Bb major + 6th Bb ninth



B CHORDS

B major B minor B seventh B diminished



B augmented B minor 7th B major + 6th B ninth



EXCERPTS SHOWING USE OF CHORD CHARTS

The following excerpts illustrate how the chord charts may be used to determine the harmony from the piano score. Below each score of piano music is a score of equivalent Chord Organ Music.

IL BACIO

LUIGI ARDITI

p dolcissimo *ten.* *ten.*

C G7 A A C

2 3 2

LARGO

2 = C
1 = F 3 = G7

Very slow (with feeling)

G. F. HANDEL

p

G D7 G C D7 G D

2 3 2 1 3 2 3mj

SHARP
Square Notes

2 = G
1 = C 3 = D7

CHANSON TRISTE

la melodia molto espress.

PETER TSCHAIKOWSKY

p *ped. * ped. * segue*

Gm D7 Gm Bb7 Eb Bb Cm C- Gm D7

2m 3 2m Bb7 Eb Bb 1m 1- 2m 3

FLAT
Square Notes

2 = G
1 = C 3 = D7

PRELUDE

Andantino

FREDERIC CHOPIN

SHARP
Square Notes ☐

2=A
1=D 3=E7

SONG WITHOUT WORDS

Allegretto grazioso e cantabile

PETER TSCHAIKOWSKY

FLAT
Square Notes ☐

2=F
1=Bb 3=C7

THE HAPPY FARMER

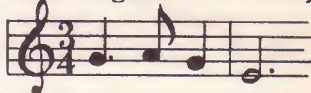
ROBERT SCHUMANN


FLAT
Square Notes ☐

2=F
1=Bb 3=C7

INSTRUCTIONS FOR TRANSITION
FROM "PICTURE MUSIC" TO "STANDARD MUSIC"
ON THE HAMMOND CHORD ORGAN

By now you have had the pleasure of playing a large number of selections on the Chord Organ, using the picture music supplied with your instrument. This is a good beginning, but there is no reason for you to stop at this point. The Chord Organ offers you tremendous musical resources - in fact, is used by many professional musicians because it provides combinations and effects available on no other instrument. You've already become familiar with the keyboard and with the melody and rhythm of many selections, and with but little more musical knowledge you will be able to play any of the many thousands of popular selections constantly being made available by music publishers. You will be able to buy standard piano editions of "hit" tunes from your local music dealer and play them while they are at the height of their popularity.

In order to play standard music on the Chord Organ, it is only necessary to know how to read the "treble" or upper staff,  since the chord buttons supply the accompaniment represented by the piano "bass" or lower staff,

 A great many people already know how to read the treble staff as the result of having had a little piano instruction or having learned to read the treble staff in studying band instruments or singing. If, however, you have never had occasion to learn to read this "melody line", you can quickly do so by following the simple system explained in these pages.

How Notes Are Arranged On Treble Staff

To begin with, a "staff" is the combination of five lines and four spaces on which the notes are indicated. As you may already know, the keys are given the names of the first seven letters of the alphabet. The various lines and spaces of the staff are also given the same alphabetical names. In the drawing on the next page we have shown the notes on the staff itself in black, and those which are below or above the staff in gray; the position of each of the latter notes is indicated by additional short lines which are called "leger" lines.

LOWEST
CHORD
ORGAN
MANUAL
KEY IS F



We suggest using a red pencil to mark your music because it will show up better. Incidentally, the notes in the spaces spell "F-A-C-E", which will help you to memorize them quickly. The notes on the lines are, of course, "E-G-B-D-F" and this can be readily memorized by remembering the sentence, "Every Good Boy Does Fine." It is desirable to memorize the position of the notes as soon as possible so that you don't have to bother to mark your music.

"SHARPS" AND "FLATS"

Before beginning to play from the standard music, you will need to understand the use of the black keys on the keyboard. Each black key is a semi-tone above the white key to the left of it, and a semi-tone below the white key to the right of it. If your music carries a sharp sign (\sharp) it means that the note is to be raised in pitch, so you play the black key immediately to the right of the white or "natural" key. If the sign used is a flat sign (\flat) it indicates that the note is to be lowered in pitch, so you play the black key immediately to the left of the white key. However, since there are no black keys between "E" and "F" and between "B" and "C," when a sharp or a flat is needed you have to play the adjacent white key instead.











In the picture music you are accustomed to finding each sharp or flat indicated by a black note. In the standard music supplied with the Chord Organ, each sharp or flat is indicated at the beginning of the music (as is done with all standard music), and you must use sharps or flats in every case for the notes indicated, unless the note is preceded by a natural sign (\natural) which cancels the sharp or flat for the entire measure. You will also occasionally find a note marked with a sharp or flat not indicated at the beginning of the music and this, too, applies to this note each time it is used within the measure. A measure, by the way, is each section of the staff between the up-and-down "bar lines."

You may have noticed that the sharps and flats in the standard music supplied with your Chord Organ are represented by a square note instead of the usual oval note. This is done to help you remember that a particular note is sharp or flat. At the beginning you may wish to mark each sharp or flat on whatever piano music you learn to play on the Chord Organ; music teachers often do this, especially those sharps or flats which you are inclined to forget.




HOW TO COUNT

In order that you may quickly gain confidence in your ability to read the treble staff, it is suggested that you now mark up the notes in several more of the selections at the beginning of your book. Let's take "Home on the Range" - it's easy, and you will notice that it is $3/4$ time (waltz time), which means three counts to a measure, the same as "Silent Night."

At the bottom of each piece of picture music, you will recall, you have been told, "count 3" or "count 4." On standard music, you will find first the sign C , which identifies the treble staff, then a numerical designation such as $3/4$, $4/4$, etc., which indicates the count, or "time." The top number tells how many counts there are to a measure and the bottom number indicates which kind of note receives one count. Which brings us to the fact that notes are known as whole notes, half notes, quarter notes, eighth notes and sixteenth notes. Each note is different in design, as shown on the chart below, and each note calls for the right amount of time in relationship to the other notes. The quarter note is the most commonly used measure of time. In fact, $4/4$ time is known as "common time" and is often designated by a large "C" at the beginning of the music instead of numerals. There are also "rests" with values which correspond to the notes, so the whole thing is put into the chart form below for your guidance.

A "whole note" is 	& the "whole rest" is 	& either is held for 4 counts.
A "half note" is 	" " "half rest" is 	" " " " " 2 "
A "quarter note" is 	" " "quarter rest" is 	" " " " " 1 "
An "eighth note" is 	" " "eighth rest" is 	" " " " " $1/2$ "
A "sixteenth note" is 	" " "sixteenth rest" is 	" " " " " $1/4$ "

DOTTED AND TIED NOTES

Frequently you will find a little dot after a note (♩.) which means that you should hold that note for one-half longer; for instance a dotted quarter note will be held for one-and-a-half counts instead of the one it would ordinarily receive. Sometimes, also, you will find a curved line, called a "tie," connecting two or more of the same notes, like . This means that you do not play the second note but hold the first note for the combined count of the tied notes. Notes with "flags" are often connected by a bar, but this does not change their time value nor the manner of playing them. For instance, , are both eighth notes, connected for convenience. They are played separately as if they were .

PLAYING CHORDS WITH THE RIGHT HAND

Two notes of the same name played together with one hand are called an "octave" - like, for instance, Middle "C" and the "C" above it. Two or more different notes played together with one hand are known as a "chord." As you begin to play from standard popular music, you will often find octaves and chords used to give added richness and interest to the music.


When you play chords with your right hand, you must be careful not to release the top note before releasing the rest of the chord. This is because the top note of the chord always carries the melody, which would be interrupted if a lower note were heard after you released the top note.

In playing "legato" music (where the tones are "sustained") good organists get a very smooth effect by treating all the "common notes" in chords following each other as if they were "tied." In other words, in changing from "E C" to "F A C" you would hold the "C" as if it were "tied" and move your other fingers to the "F" and "A." In this way you change chords without interrupting the flow of the music.

PLAYING ACCOMPANIMENT CHORDS

Practically all popular music carries guitar chord names which are printed above the melody line, and which will serve as a guide in selecting the chord buttons to use for accompaniments. In Part 2 of the section, "Advanced Instructions for the Hammond Chord Organ," you will find complete instructions for selecting the chords to be played. The "Catalogue of Suggested Chord Revisions for Use When Playing the Hammond Chord Organ from Popular Piano Sheet Music" supplies chord suggestions for a large number of current song hits and will help you to get professional-sounding effects easily and quickly.

MARKING PEDAL INSTRUCTIONS

As an aid to playing popular music in proper rhythm, you will find it helpful to determine into which of the rhythm patterns each selection fits by checking it against pages 7 and 8 of the "Second Half-Hour Instruction" section. Then, using your red pencil again, go through the piece and put the pedal indications , in proper position. In most cases you will select the left pedal to accompany the first note of each bar, with the right pedal for the off-beat. You will also use the left pedal on all chord changes. In similar fashion you can indicate the use of the chord bar, using a heavy line under the staff and breaking it to denote rhythm in the same fashion as is done on the picture music.

In this connection, it is most desirable to spend some time practicing the various rhythm patterns referred to above because most popular pieces fit into these patterns. Once you have learned to play these rhythm patterns automatically you will not need to mark your music with pedal and chord bar indications.